

6Y6-GT

BEAM PENTODE

DESCRIPTION AND RATING

The 6Y6-GT is a beam power pentode primarily intended for use as an audio-frequency power amplifier. It is particularly useful in applications where the available supply voltage is relatively low. The 6Y6-GT differs from the 6Y6-G in only one respect, the straight-sided T-9 construction.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential

Heater Voltage, AC or DC	6.3	Volts
Heater Current	1.25	Amperes

MECHANICAL

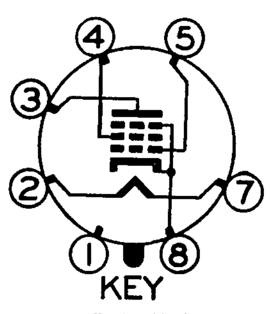
Mounting Position—Any
Envelope—T-9, Glass
Base—B6-81 or B7-7, Intermediate Shell Octal
or B6-84 or B7-59, Short Intermediate Shell Octal

MAXIMUM RATINGS

DESIGN-CENTER VALUES

Plate Voltage	200	Volts
Screen Voltage	135	Volts
Plate Dissipation	12.5	Watts
Screen Dissipation	1.75	Watts
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode	180	Volts
Heater Negative with Respect to Cathode	180	Volts
Grid-Number 1 Circuit Resistance		
With Fixed Bias	0.1	Megohms
With Cathode Bias	0.5	Megohms

BASING DIAGRAM



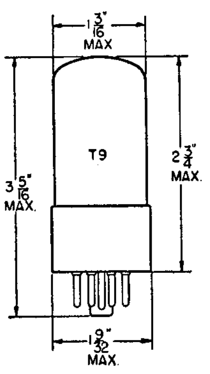
RETMA 7AC

TERMINAL CONNECTIONS

Pin 1—No Connection*
Pin 2—Heater
Pin 3—Plate
Pin 4—Grid Number 2 (Screen)
Pin 5—Grid Number 1
Pin 7—Heater
Pin 8—Cathode and Beam Plates

* Pin 1 omitted on bases B6-81 and B6-84.

PHYSICAL DIMENSIONS

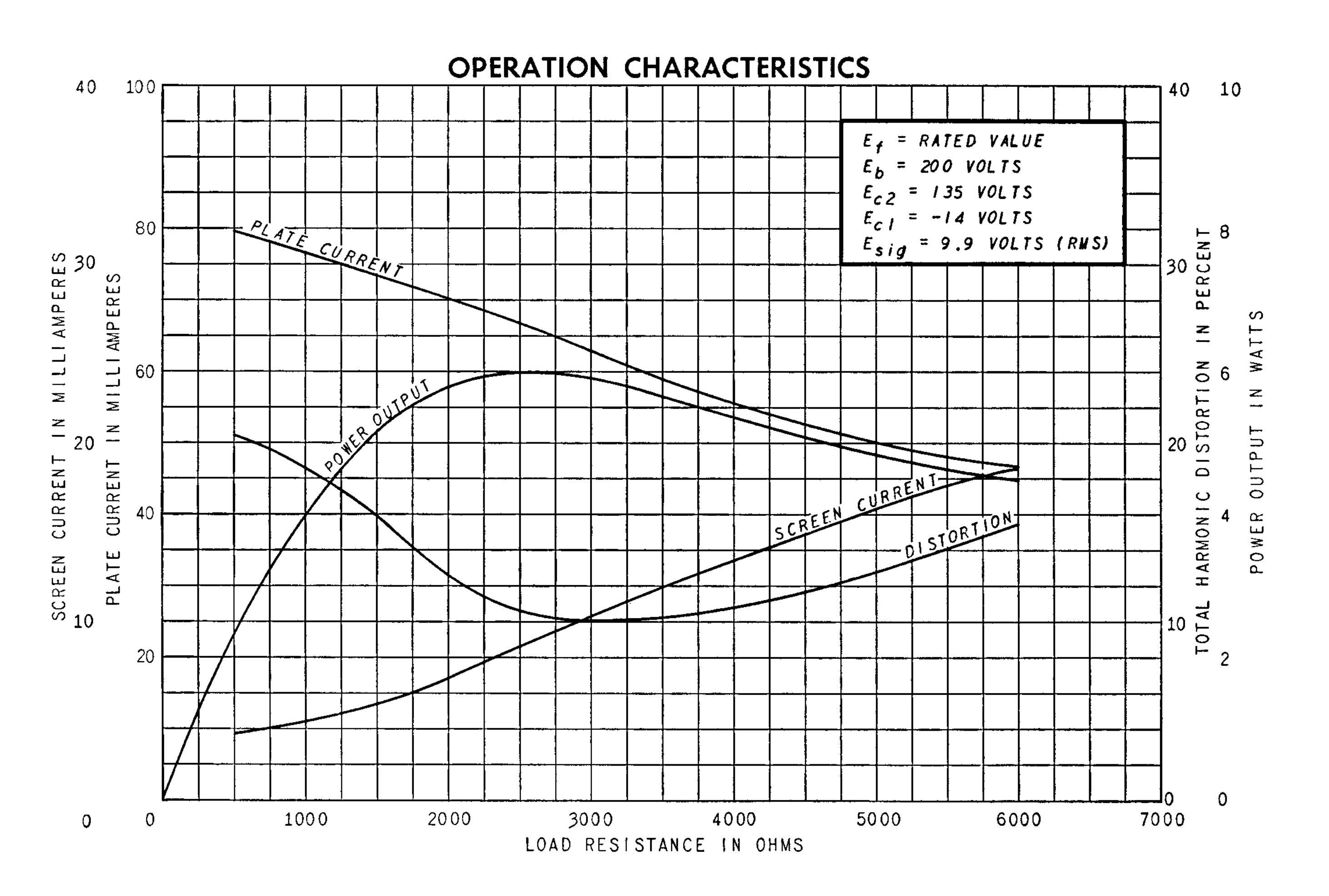


RETMA 9-11 OR 9-41

CHARACTERISTICS AND TYPICAL OPERATION

CLASS A_1 AMPLIFIER

Plate Voltage	135	200	Volts
Screen Voltage	135	135	Volts
Grid-Number 1 Voltage	−13.5	−14	Volts
Peak AF Grid-Number 1 Voltage	13.5	14	Volts
Plate Resistance, approximate	9300	18300	Ohms
Transconductance	7000	7100	Micromhos
Zero-Signal Plate Current	58	61	Milliamperes
Maximum-Signal Plate Current	60	66	Milliamperes
Zero-Signal Screen Current	3.5	2.2	Milliamperes
Maximum-Signal Screen Current	11.5	9.0	Milliamperes
Load Resistance	2000	2600	Ohms
Total Harmonic Distortion, approximate	10	10	Percent
Maximum-Signal Power Output	3.6	6.0	Watts



AVERAGE PLATE CHARACTERISTICS

E_f = RATED VALUE
E_{c2} = 135 VOLTS

I_b @ E_{c1} = 0 VOLTS
-2.0
-4.0
-6.0
-8.0
-10
-12
-14
-16
-18
-20
-22
-26
-30

I_{c2} @ E_{c1} = 0 VOLTS
-4.0
-8.0
-12
-16
-20

PLATE CURRENT (I_b) IN MILLIAMPERES: 0, 50, 100, 150, 200
SCREEN CURRENT (I_{c2}) IN MILLIAMPERES: 0, 10, 20, 30, 40, 50
PLATE VOLTAGE IN VOLTS: 0, 100, 200, 300, 400, 500

AVERAGE PLATE CHARACTERISTICS

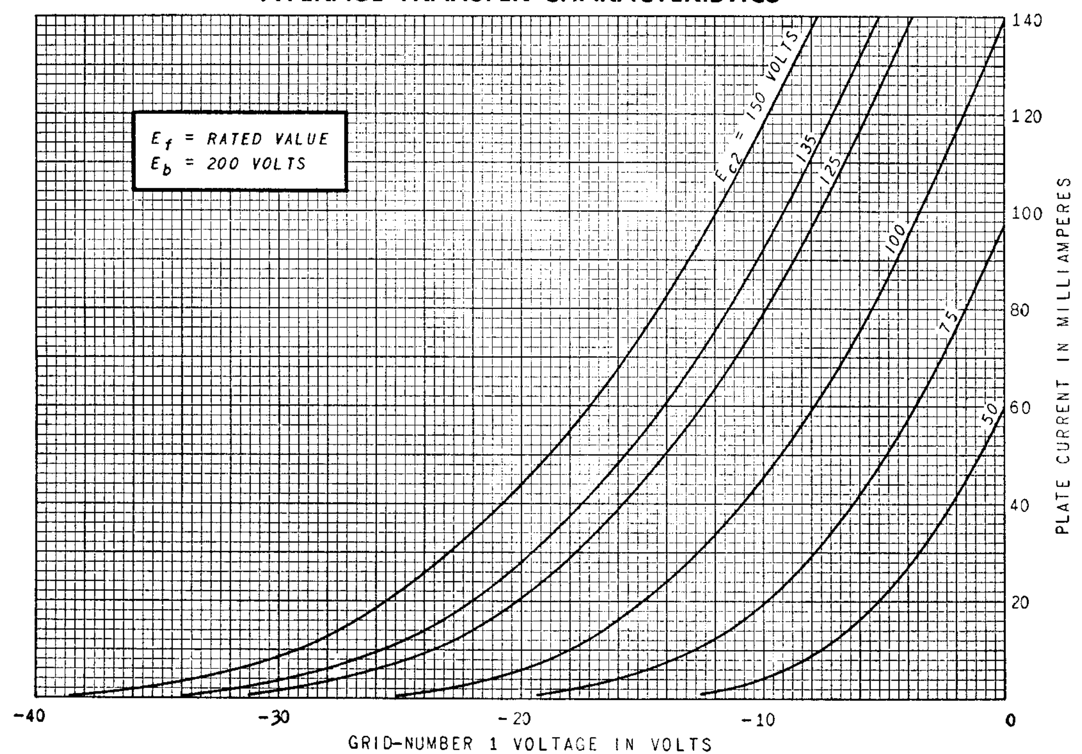
E_f = RATED VALUE
E_{c1} = 0 VOLTS

I_b @ E_{c2} = 150 VOLTS
135
125
100
75
50

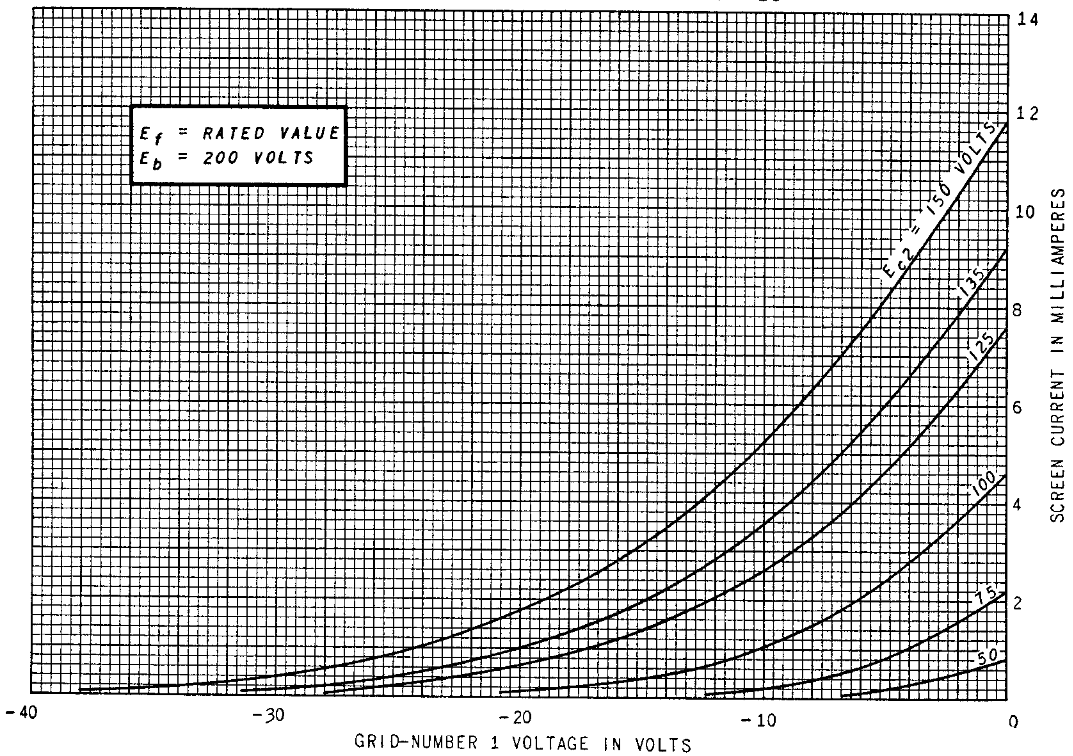
I_{c2} @ E_{c2} = 150 VOLTS
135
125
100
75
50

PLATE CURRENT (I_b) IN MILLIAMPERES: 40, 80, 120, 160, 200, 240, 280
SCREEN CURRENT (I_{c2}) IN MILLIAMPERES: 0, 5, 10, 15, 20, 25, 30, 35
PLATE VOLTAGE IN VOLTS: 0, 100, 200, 300, 400, 500

AVERAGE TRANSFER CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



ELECTRONIC COMPONENTS DIVISION



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